ADDENDUMS FOR OPERATOR STANDARDS

Replace ……. With

vi……..vi

vii…….vii

viii……...……viii

ix……..ix

10…….10

14…….14

15…….15

26…….26

28…….28

29…….29

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2.1 NPMS File Naming Conventions

Operators are requested to use the following formula when assigning file names:

Type of File Code + OPS_ID + Hyphen + 4-Digit Sequential Number + 3-Digit Alphanumeric Extension

Sample file name: **G12345-0001.DWG**

Type of File Code (one-character, alpha):

G = Geospatial Data Only

A = Attribute Data Only

B = Both Geospatial and Attribute Data

(Also use "B" when different geospatial and attribute files should have the same name. For example, an export from ESRI's ArcView software: B12345-0001.SHP, B12345-0001.SHX, B12345-0001.DBF.)

M = Metadata

OPS_ID (five digits [maximum], numeric) – This is the identification number assigned by the Office of Pipeline Safety to pipeline and LNG facility operators, for user-fee purposes. The OPS_ID has five digits or fewer. If you don't know your OPS_ID check the NPMS Web Site.

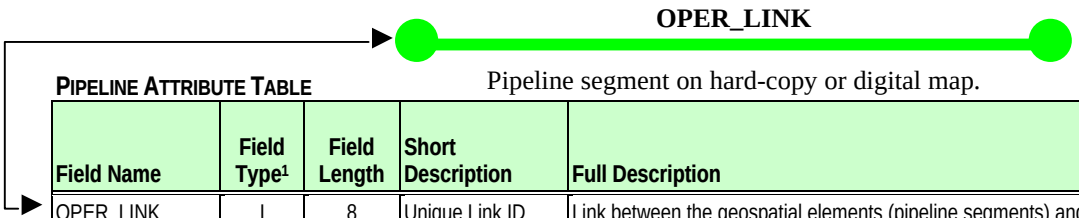
4-Digit Sequential Number (four-digit, numeric) – This is used to avoid assigning several files with the same file name

Extension (three-character default from software package) – Use the default extension for export from the software package (e.g., **.**DWG, **.**SHP, **.**DBF, etc.).

2.2 Types of NPMS Submissions

Operators must classify submissions according to one of the following types. Operators planning to make a submission that combines submission types should contact the repository(ies) to which the submission will be sent prior to preparing the submission. The various types of submissions are intended to facilitate maintenance of the NPMS and minimize the effort required by pipeline operators.

Additions – Additions contain **only** data that is new to the NPMS. All original submissions are additions. All additions should contain geospatial data, attribute

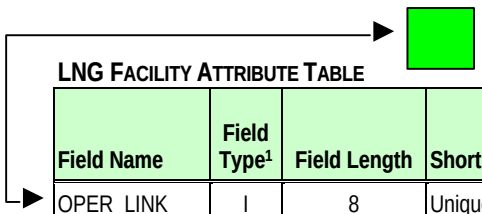


PIPELINE ATTRIBUTE TABLE

Field Name	Field Type[1]	Field Length	Short Description	Full Description	Acceptable Values[2] (UPPERCASE)	Required Field
OPER_LINK	I	8	Unique Link ID	Link between the geospatial elements (pipeline segments) and their respective attribute records. Assigned by the operator or the operator's software package (i.e., COVER-ID, MSLINK_ID, etc.). Note the OPER_LINK and the PLINE_ID may be identical.	Positive integer	Y
OPS_ID	I	5	Operator Number	Accounting number assigned by the OPS to the company that physically operates the pipeline system. If you do not know your firm's OPS_ID, check with your accounting department or the NPMS Web Site	Positive integer	Y
OPER_NM	C	40	Operator Name	The company name that physically operates the pipeline system.	Character	Y
SYS_NM	C	40	System Name	Assigned by the operator. The operator's name for a functional grouping of pipelines.	Character	Y
SUBSYS_NM	C	40	Sub System Name	Assigned by the operator. A unique name for a smaller sub-section of a pipeline system. A subset of SYS_NM.	Character	N[3]
PLINE_ID	C	20	Pipeline ID	Assigned by the operator. This is a identifier for a specific section of pipeline within a pipeline system.	Character	Y
DIAMETER	R	5	Diameter	Nominal diameter of the pipeline segment, in inches (two decimal places, ##.##).	Real Number	N[3]
COMMODITY1	C	3	Commodity Category 1	Abbreviation for the primary commodity carried by the pipeline system. HG=hydrogen gas, CRD=crude oil, LPG=liquid petroleum gas, NG=natural gas, PRD=product, AA=anhydrous ammonia, CO2=carbon dioxide, NGL=natural gas liquids, HVL=highly volatile liquid, EMT=empty.	HG, CRD, LPG, NG, PRD, AA, CO2, NGL, HVL, EMT	Y
COMMODITY2	C	3	Commodity Category 2	Abbreviation for the secondary commodity carried by the pipeline system. HG=hydrogen gas, CRD=crude oil, LPG=liquid petroleum gas, NG=natural gas, PRD=product, AA=anhydrous ammonia, CO2=carbon dioxide, NGL=natural gas liquids, HVL=highly volatile liquid.	HG, CRD, LPG, NG, PRD, AA, CO2, NGL, HVL	N[3]
COMMODITY3	C	3	Commodity Category 3	Abbreviation for the tertiary commodity carried by the pipeline system. HG=hydrogen gas, CRD=crude oil, LPG=liquid petroleum gas, NG=natural gas, PRD=product, AA=anhydrous ammonia, CO2=carbon dioxide, NGL=natural gas liquids, HVL=highly volatile liquid.	HG, CRD, LPG, NG, PRD, AA, CO2, NGL, HVL	N[3]
CMDTY_DESC	C	40	Commodity Description	Descriptive information of the commodities carried by the pipeline system. For example, "NATURAL GAS" or "PROPANE."	Character	N[3]
INTERSTATE	C	1	Interstate Designation	(Y)es / (N)o designator to identify if the pipeline system is an interstate pipeline. Y=Interstate, N=Intrastate. (Use OPS definition; see glossary).	Y, N	Y
STATUS_CD	C	1	Pipeline Status Code	Identifies the current status of the pipeline segment. I=in service, B=abandoned, R=retired.	I, B, R	Y
QUALITY_CD	C	1	Data Quality Code	Operator's estimate of the positional accuracy of the submitted pipeline segment . E=excellent: within 50 feet, V=very good: 50–300 feet, G=good: 301–500 feet, P=poor: 501–1000 feet, U=Unknown.	E, V, G, P, U	Y
REVIS_CD	C	1	Revision Code	Identifies this pipeline segment as an A=addition to the NPMS, or a M=modification to or D=deletion of a previous submission.	A, M, D	Y
META_NAME	C	15	Metadata File Name	1 Character type of file code + 5 digit OPS_ID + 4 digit file number.	File name	Y

NOTES: 1 I – Integer; C – Character; R – Real Number.
2 Field must be UPPERCASE.
3 N – in the "Required Field" column means that the operator does not have to submit data for that field. However, the operator still needs to include that field in the submitted tables to the repository.

Exhibit 3-1. Attribute field definitions for pipeline features.



LNG FACILITY ATTRIBUTE TABLE

Field Name	Field Type[1]	Field Length	Short Description	Full Description	Acceptable Values[2] (UPPERCASE)	Required Field
OPER_LINK	I	8	Unique Link ID	Link between the geospatial elements (points) and their respective attribute records. Assigned by the operator or the operator's software package (i.e., COVER-ID, MSLINK_ID, etc.). Note the OPER_LINK and the LNG_ID can be identical.	Positive integer	Y
OPS_ID	I	5	Operator Number	Accounting number assigned by the OPS to the company that physically operates the LNG facility. If you do not know your firm's OPS_ID check, with your accounting department.	Positive integer	Y
OPER_NM	C	40	Operator Name	The name of the company that physically operates the facility.	Character	Y
LNG_NM	C	40	LNG Facility Name	Assigned by the operator. The operator's name for the LNG facility.	Character	Y
LNG_ID	C	20	LNG Facility ID	Assigned by the operator. This is a unique identifier for a specific facility.	Character	Y
STATUS_CD	C	1	LNG Status Code	Identifies the current status of the facility. I=in service, B=abandoned, R=retired.	I, B, R	Y
QUALITY_CD	C	1	Data Quality Code	Operator's estimate of the positional accuracy of the submitted facility data. E=excellent: within 50 feet, V=very good: 50–300 feet, G=good: 301–500 feet, P=poor: 501–1000 feet, U=Unknown.	E, V, G, P, U	Y
REVIS_CD	C	1	Revision Code	Identifies this facility as an A=addition to the NPMS, or a M=modification to or D=deletion of a previous submission.	A, M, D	Y
META_NAME	C	15	Metadata File Name	1 Character type of file code + 5 digit OPS_ID + 4 digit file number.	File name	Y

NOTES: 1 I – Integer; C – Character.
2 Field must be UPPERCASE.

Exhibit 3-2. Attribute field definitions for LNG facilities.

FRAMME Loader SEF Format. FRAMME's normal method of bulk data import and export is a product module called FRAMME Loader. It supports both loading and unloading of ASCII text files. These text files must be in a structured format called Standard Exchange Format (SEF). The SEF file contains both feature attributes and graphic definitions. The basic process to create this SEF file follows:

1. From within FRAMME, isolate the data to be exported using the feature extraction process.
2. Unload the extracted data using FRAMME Loader capabilities.

4.2.4 Intergraph/Bentley Corporation's Microstation and non-FRAMME Data Submissions

Operators may submit geospatial data using Microstation/Intergraph systems. The following procedures have been developed to help operators submit this type of data.

Because it is difficult to attach attribute data to Microstation/Intergraph drawing files, the following tasks must be performed before providing data to the NPMS repositories:

1. Isolate the data to be submitted to the NPMS.
2. Annotate a unique item, OPER_LINK, for each pipeline or LNG facility using either the LAYER or MS-LINK field in the MicroStation drawing.
3. Save the drawing as a **.**DGN file. Create an attribute data table using the *NPMS Attribute Data Template* software.
4. Enter the OPER_LINK identifier from the drawing and that pipeline's or facility's attribute data into the attribute table.
5. Submit both the **.**DGN and the attribute table to the NPMS. For the **.**DGN file, also submit a schema or template for the levels used.
6. Include in the associated metadata any special instructions, such as map units, scale, seed file, font types, etc. that are associated with the **.**DGN file to help the NPMS process the data.

4.2.5 MapInfo Data Submissions

Operators may submit data to the NPMS using the MapInfo Interchange File (MIF) format of MapInfo Corporation desktop software (Version 3 or higher). The **projection** must be noted: Category, Category Members, and Map Units (coordinate units, distance units, and area units).

1. Isolate the data to be submitted to the NPMS in a separate table.
2. Export the table (Table ® export).

4.2.8 Generic (ASCII) Digital Data Submissions

This type of submission will include a geospatial file containing coordinate data, an attribute file containing information associated with the pipeline(s) or LNG facility(ies), and a metadata file describing the data.

The file formats for pipeline and LNG information are different. Both file formats are described below, including record layouts.

Geospatial File for Pipeline Digital Data Submissions. To submit digital data for pipelines, the operator will create files matching the following format. The file format will include the unique identifier (OPER_LINK) on one line, followed by a coordinate pair (longitude and latitude). Additional coordinate pairs will be listed in order of appearance along the line segment until all coordinate pairs are displayed. The final coordinate pair for the line segment is to be followed by the word "END." "END" designates the end of the coordinate information that comprises a line segment. Each line segment submitted must contain a minimum of two coordinate pairs to represent the beginning and end of a straight line. An additional "END" is required to designate the end of the file.

The unique identifier (OPER_LINK) will link the geospatial location to the attribute information for each pipeline submitted. Header information, as shown in Exhibit 4-1, should not be included in the submitted file.

DESCRIPTION	ASCII FILE FORMAT
(Do not include this section in your file)	
OPER_LINK	1 5 1
LONGITUDE, LATITUDE PAIR	-94.576415, 32.911658
LONGITUDE, LATITUDE PAIR	-94.576456, 32.912639
END OF LINE	END
OPER_LINK	1 5 2
LONGITUDE, LATITUDE PAIR	-94.456415, 33.001658
LONGITUDE, LATITUDE PAIR	-94.456797, 33.000681
LONGITUDE, LATITUDE PAIR	-94.457108, 33.000284
LONGITUDE, LATITUDE PAIR	-94.457801, 32.999916
END OF LINE	END
OPER_LINK	1 5 3
LONGITUDE, LATITUDE PAIR	-94.457801, 32.999916
LONGITUDE, LATITUDE PAIR	-94.457153, 33.001479
LONGITUDE, LATITUDE PAIR	-94.456883, 33.002639
END OF LINE	END
	.
	.
	.
OPER_LINK	1 5 1 9
LONGITUDE, LATITUDE PAIR	-93.541213, 33.674068
LONGITUDE, LATITUDE PAIR	-93.541416, 33.674597
LONGITUDE, LATITUDE PAIR	-93.542386, 33.675419
LONGITUDE, LATITUDE PAIR	-93.545604, 33.677437
LONGITUDE, LATITUDE PAIR	-93.546609, 33.677782
END OF LINE	END
END OF FILE	END

Exhibit 4-1. Geospatial file containing pipeline information.

Longitude, should be stated in decimal degrees (no projection), for every stored pipeline begin, shape, and end point – a minimum of five decimal places is required. Western Hemisphere longitude should be a negative value. Acceptable values are -180.00000 to 0.00000.

Latitude, should be stated in decimal degrees (no projection), for every stored pipeline begin, shape, and end point – a minimum of five decimal places is required. Northern Hemisphere latitude should be a positive value. Acceptable values are 0.00000 to 90.00000.

***Geospatial File for LNG Facility Digital Data Submissions*.** To submit digital data for LNG facilities, the operator will create files matching the following format. The geospatial file for LNG facilities will contain the unique identifier (OPER_LINK) plus the longitude and latitude values on a single line. The unique identifier (OPER_LINK) will link the geospatial location to the attribute information for each LNG facility submitted. The last line in the file must contain only the word "END." Header information, as shown in Exhibit 4-2, should not be included in the submitted file.

The location should reflect the approximate geographic center of the LNG facility. If the location depicts something other than the approximate center, note this in Question 3 of the Data Transmittal Form.

OPER_LINK				LONGITUDE											LATITUDE										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27

```
2 0 1 ,   - 9 4 .  1 1 5 9 9 7 ,  3 3 .  2 5 0 0 0 0
2 0 2 ,   - 9 4 .  3 8 3 0 0 3 ,  3 3 .  2 0 0 0 0 1
2 0 3 ,   - 9 3 .  8 6 5 9 9 7 ,  3 2 .  8 6 5 9 9 9
2 0 4 ,   - 9 4 .  0 5 0 0 0 3 ,  3 2 .  7 8 5 9 3 7
2 0 5 ,   - 9 4 .  5 9 9 9 9 8 ,  3 3 .  5 3 6 2 9 4
END       *** Marks the end of the file.
```

Exhibit 4-2. Geospatial file containing LNG point information.